

1. (Amended): An elongated multi-layer fuel and vapor tube comprising:

a first layer disposed radially innermost having an inner surface capable of prolonged exposure to a fluid containing hydrocarbons, the first layer consisting essentially of a melt-processible thermoplastic, the melt processible thermoplastic selected from the group consisting of polyamides, thermoplastic elastomers, [aromatic] aliphatic polyketones and mixtures thereof,

a second layer uniformly connected to the first layer in co-extruded relationship therewith, the second layer consisting essentially of an extrudable, melt-processible non-polyester, non-alcoholic thermoplastic material capable of sufficiently permanent laminar connection with the first layer so as to prevent delamination from the first layer during a desired lifetime of the tube;

a third layer uniformly connected to the second layer, the third layer consisting essentially of an extrudable melt-processible thermoplastic having as a major constituent a thermoplastic material selected from the group consisting of thermoplastic elastomers, polyamides and mixtures thereof; and

wherein the thermoplastic material of the second layer contains at least one fluoroplastic constituent which is chemically dissimilar from the thermoplastic material of the [third] first layer in alloyed combination therewith [; and

wherein the elongated multi-layer tube has a hydrocarbon permeation level below about 0.5 g/m² per 24 hour interval].

6. (Amended): The elongated multi-layer tube of claim 2 wherein the thermoplastic material employed in the [first] second layer is selected from the group consisting of fluoroplastics,

thermoplastic elastomers, polyamides and mixtures thereof.

7. (Amended): The elongated multi-layer tube of claim 6 wherein the thermoplastic material of the [first] second layer is a polyamide selected from the group consisting of nylon 11, nylon 12, nylon 6, nylon 6.6, and mixtures thereof.

8. (Amended): The elongated multi-layer tube of claim 6 wherein the elastomer thermoplastic material of the [first] second layer is a thermoplastic elastomer selected from the group consisting of Sarlink, Kraton, Vichem, Santoprene, and mixtures thereof.

9. (Amended): The elongated multi-layer tube of claim 6 wherein the thermoplastic material employed in the [first] second layer is a fluoroplastic selected from the group consisting of copolymers of ethylene tetrafluoroethane, polyvinylfluoride, polyvinylidene fluoride and mixtures thereof.

15. (Amended): An elongated multi-layer tube comprising:

a first layer disposed radially innermost having an inner surface capable of prolonged exposure to a fluid containing hydrocarbons, the first layer consisting essentially of a melt-processible thermoplastic;

a second layer uniformly connected to the first layer in co-extruded relationship therewith, the second layer consisting essentially of an extrudable, melt-processible non-polyester, non-alcoholic thermoplastic material capable of sufficiently permanent laminar connection with the first layer so as to prevent delamination from the first layer during a desired lifetime of the tube;

a third layer uniformly connected to the second layer, the third layer consisting essentially of an extrudable melt-processible thermoplastic having as a major constituent a thermoplastic material selected from the group consisting of thermoplastic elastomers, polyamides and mixtures thereof;

wherein the thermoplastic material of the second layer contains at least one [fluoroplastic] constituent which is chemically dissimilar from the thermoplastic material of the [third] first layer in alloyed combination therewith; and

wherein the thermoplastic material employed in the second layer consists essentially of a first melt-processible thermoplastic compound having at least two isocyanate groups and a second melt-processible thermoplastic compound selected from the group consisting of thermoplastic elastomers, polyamides and mixtures thereof wherein the first and second melt-processible materials are in alloyed relationship with one another.

32. (Amended): The elongated multi-layer of claim 26 wherein the thermoplastic material employed in the first layer is selected from the group consisting of [fluoroplastics,] thermoplastic elastomers, polyamides and mixtures thereof.

33. (Amended): The elongated multi-layer tube of claim 32 wherein the [thermoplastic material of the first layer is a] polyamide of the second layer is selected from the group consisting of nylon 11, nylon 12, nylon 6, nylon 6.6, and mixtures thereof.

34. (Amended): The elongated multi-layer tube of claim 32, wherein the [elastomer thermoplastic material of the first layer is a] thermoplastic elastomer of the second layer is selected from the group